INDIANA DEPARTMENT OF CORRECTION

INDIANA SHERIFFS' ASSOCIATION

INDIANA BUREAU OF MOTOR VEHICLES

INDIANA STATE POLICE CRIMINAL JUSTICE DATA DIVISION

STARS – INSVOR – IDACS

BMV Automated InSVOR Verification through IDACS

This design specification outlines the information sharing and system interconnection requirements to capture BMV customer registration and credential transactions, and compare their identification and address data to state and national sex offender registries via IDACS.

June 14, 2012

EXECUTIVE SUMMARY

Since 2005, the Indiana Department of Correction has led a multi-agency effort to consolidate, streamline, and strengthen the process of registering and tracking sexual and violent offenders within Indiana. However, offenders' ability to move between jurisdictions, maintaining identification credentials and vehicle registrations, without notifying law enforcement as required impedes Indiana's full compliance with state and federal laws.

Through funding from recent Federal grants, this project will connect the Indiana Bureau of Motor Vehicle's driver and vehicle systems with the Indiana State Police's law enforcement information system to capture customer registration and credential transactions, and compare their identification and address data to state and national sex offender registries. Where customer identification data matches with a registered sex offender, and the customer's address data fails to match that of the matched offender, appropriate law enforcement agents will be notified to initiate a follow-up investigation. If no match occurs, or if a registered offender's data matches at both the identification and address levels, the transaction will be forgotten for customer privacy and security reasons.

This project will require coordinated development, testing, and implementation between the three affected agencies, as well as relevant Memorandums to cover grant-funding transfers for payment to vendors.

The interfaces will be developed using current technology, including, where appropriate, Web Services and XML conformant to the National Information Exchange Model, as required for Federal grant funded information systems.

The grant funding for this project expires September 30, 2012. All agreements must be in place by this date. All work on this project must be completed within 90 days following grant expiration.

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REVISION HISTORY

Revision Date	Author	Reason for Revision
2010/03/19	M. Paxton, ISP	Base Document
2010/07/12	M. Paxton, ISP	Reduced scope from two integrated processes to only BMV Automated Verification. *Created a separate document for IDACS Automated Update.*
2011/07/25	M. Paxton, ISP	Updated funding information.
2012/03/28	M. Paxton, ISP	• Changed process to eliminate first limited information query. BMV will compare current residents against InSVOR directly; any "hits" will then be forwarded by BMV to IDACS in "full record" form. New residents from out-of-state will also be sent only in "full record" form. • Removed uses of BMV information beyond the scope of sex offenders. Changed "QW" (Query Person) to "QXS" (Query Sex Offender).
2012/04/23	M. Paxton, ISP	• Based on a corrected understanding, new residents from out-of-state will revert back to the previous process where BMV will send limited information, IDACS will query NCIC on that and return Customer Numbers that result in a hit. BMV will then send "full" information on only those Customer Numbers that resulted in a hit against NCIC.
2012/06/14	M. Paxton, ISP	• Revised to clarify communication interfaces that have changed due to design redirections.

STARS – INSVOR – IDACS

BMV Automated InSVOR Verification through IDACS

1   BACKGROUND

Since 2005, the Indiana Department of Correction (IDOC) has led a multi-agency effort to consolidate, streamline, and strengthen the process of registering and tracking sexual and violent offenders within Indiana. IDOC operates the current Indiana Sex and Violent Offender Registry (InSVOR) system on behalf of the Indiana Sheriffs Association. However, several factors impede Indiana's full compliance with state and federal laws. Some of those factors require the assistance of the Indiana Bureau of Motor Vehicles (BMV) to resolve. Those factors include the following situations:

- ❖ Offenders otherwise in compliance will update their BMV records without informing their local law enforcement agency;
- ❖ Offenders who have absconded will update their BMV records without informing their local law enforcement agency;
- ❖ Offenders who have moved from an out-of-state jurisdiction that are required to register under Indiana's registration statute will fail to inform their local law enforcement agency that they now reside in Indiana;
- ❖ Addresses contained on the Sex and Violent Offender Registry are incorrectly formatted, which is essential for accurate mapping; and
- ❖ Vehicle records required under Indiana and Federal law are missing for many offenders.

IDOC recently received a grant to develop a system to cross validate sex offender records through IDACS and NSOR with transactions made at BMV offices throughout the state. This program will develop and enhance communication and information sharing between BMV and ISP and between ISP and InSVOR. Developing this program will significantly enhance local and national absconder apprehension efforts. This program will assist other states with enforcing Federal requirements for non-compliant offenders who move to Indiana without properly notifying Indiana or the original jurisdiction.

1.1 Systems Affected

Three State of Indiana systems are involved directly in this project, each requiring varying degrees of modification to accomplish project objectives: 1) BMV's State Tracking and Record Support system (STARS); 2) IDOC's Indiana Sex and Violent Offender Registry (InSVOR); and 3) ISP's Indiana Data and Communications System (IDACS).

The design and details of specific changes to each of these systems is the responsibility of the respective agencies, and beyond the scope of this document. However, the interactions and data flows between the systems required to accomplish project goals will be detailed later in this briefing. Following are brief descriptions and principal contacts for each of the affected systems.

1.1.1 State Tracking and Record Support System (STARS)
Indiana Bureau of Motor Vehicles (BMV)

The Indiana BMV's STARS system integrates all motor vehicle and driver licensing into a single system. Currently, the IDACS system places requests to the STARS system for drive and vehicle registration information, and the STARS systems either provides the information requested or replies that the information is not found. All communication between the systems occurs over a web service with both requests and replies formatted in XML. Indiana BMV employees manage the STARS system internally. The principal contact for STARS technical development is:

> Jack Evans
> Indiana Bureau of Motor Vehicles
> Indiana Government Center North
> 100 N Senate Avenue, Suite N440
> Indianapolis, Indiana 46204
> (317) 233-2796

1.1.2 Indiana Sex and Violent Offender Registry (InSVOR)
Indiana Sheriffs' Association / Indiana Department of Corrections (IDOC)

InSVOR provides the public with photos, addresses, and other information on sex offenders, including mapping that enables users to locate sex offenders living near schools, childcare centers, and parks. Users may search the registry by city, county, or ZIP code. The search shows a complete profile for the sex offender, including the conviction. InSVOR is an implementation of Watch Systems, LLC's *Offender Watch* system. The principal contacts for InSVOR are:

> Brent Myers
> Indiana Department of Correction
> Indiana Government Center South
> 302 W Washington Street, Suite W341
> Indianapolis, Indiana 46204
> (317) 233-8648

> Jonathan Roberts
> Watch Systems, LLC
> 516 East Rutland
> Covington, LA 70433
> (985) 871-8110

1.1.3 Indiana Data and Communications System (IDACS)
Indiana State Police (ISP)

IDACS is a centralized Message Switching System connecting virtually all municipal, county, state and Federal criminal justice agencies within the State of Indiana to each other, and to agencies throughout the United States. IDACS also provides agencies with access to several strategic databases both at the state level and nationally. Of importance to this project are the IDACS Sex Offender File and FBI/CJIS' NSOR, which is access via IDACS' connection to FBI/CJIS' National Crime Information Center system (NCIC). IDACS is based on the *OpenFox Message Switch* system from Computer Projects of Illinois (CPI). ISP's principal contacts for IDACS are:

> 1stSgt. Jon Carmin
> Indiana State Police
> Indiana Government Center North
> 100 N Senate Avenue, Suite N340
> Indianapolis, Indiana 46204
> (317) 232-8310

> P. R. "Cap" Cappelletti
> Computer Projects of Illinois, Inc.
> 475 Quadrangle Drive
> Bolingbrook, Illinois 60440
> (630) 754-8820 x.144

2 OBJECTIVE

The objective of this project is to implement a process to identify registration violators through civil license filings. This process will compare address information on BMV customer transactions to address information for matching individuals on the various sex and violent offender registries. Outputs will include switched messages and batch reports of potential violators, providing investigators with lead information to follow up on using standard investigative methods.

Despite the efforts made over the past several years to protect communities by strengthening the registration of offenders, as noted above several weaknesses yet remain. Implementation of this project will close those gaps by identifying registration violators and providing law enforcement with current address information for known violators registering and titling motor vehicles, and applying for driver and identification credentials.

Beginning in January 2010, Indiana implemented Secure ID requirements for driver licenses and identification credentials. Secure ID requires that individuals prove their identity, Social Security number, lawful U.S. status, and Indiana residency using multiple documentary evidences. Additionally, vehicle registration and titling that occurs at a BMV branch requires similar identification proofs.

Because driver and identification credentials are crucial to conduct much of life's everyday business, offenders required to register will routinely obtain credentials, even while failing to register with authorities as sex and violent offenders as the law requires. This project will leverage that fact to garner important lead information to aid in registration enforcement.

To accomplish project objectives, identity information provided to the BMV during a customer transaction will be matched with information on file for registered offenders. When a customer's identity appears to match a registered offender, the address presented to the BMV will be compared to address information on file in the registry. Address mismatches and known failures to register will be reported to appropriate authorities for follow-up investigation and enforcement where appropriate.

Considering the ratio of the number of BMV customers to the combined number of sex and violent offender registrants, wanted felons, and known immigration violators, logically only a small fraction of the BMV customer transactions examined will produce palpable "hits" from the queries performed. In order to safeguard the privacy of innocent citizens, only the minimally required audit records of the queries will be retained to satisfy Federal requirements.

3   OVERVIEW

The diagram in Figure 1 below illustrates the overall information flow for existing residents of Indiana. Figure 2 below illustrates the process for new residents coming in from other states. From the ISP standpoint, the two processes are identical. The processes only differ in how BMV determines which full records to send to ISP. The details of BMV's decision and operational processes are outside the scope of this document, as are any details regarding their connection to IDOC's *Offender Watch* InSVOR system.

The process of identifying registration violators at civil licensing will involve new intersystem connections and processes to:

❖   Download from BMV over sFTP limited customer information for new BMV customers from out-of-state and use that information to generate an initial "interest" list of potential matches;

❖   Return to BMV over sFTP the Customer Identifiers from the initial "interest" list for BMV's retrieval of full customer information;

❖   Download from BMV over sFTP full customer information for both existing in-state customers (separately determined by BMV) and new customers from out-of-state;

❖   Use detailed identity information in the full Customer records to further query InSVOR, the IDACS Sex Offender File and the NCIC National Sex Offender Registry;

❖   Identify differences between the stored address data for the identity and the address contained in potentially matching responses;

❖   Generate notifications to interested entities for any address mismatch on a potential identity-matched response; and

❖   Produce a nightly report of all potential address mismatches.

Automated InSVOR Verification

Existing In-State Residents	28 MAR 2012
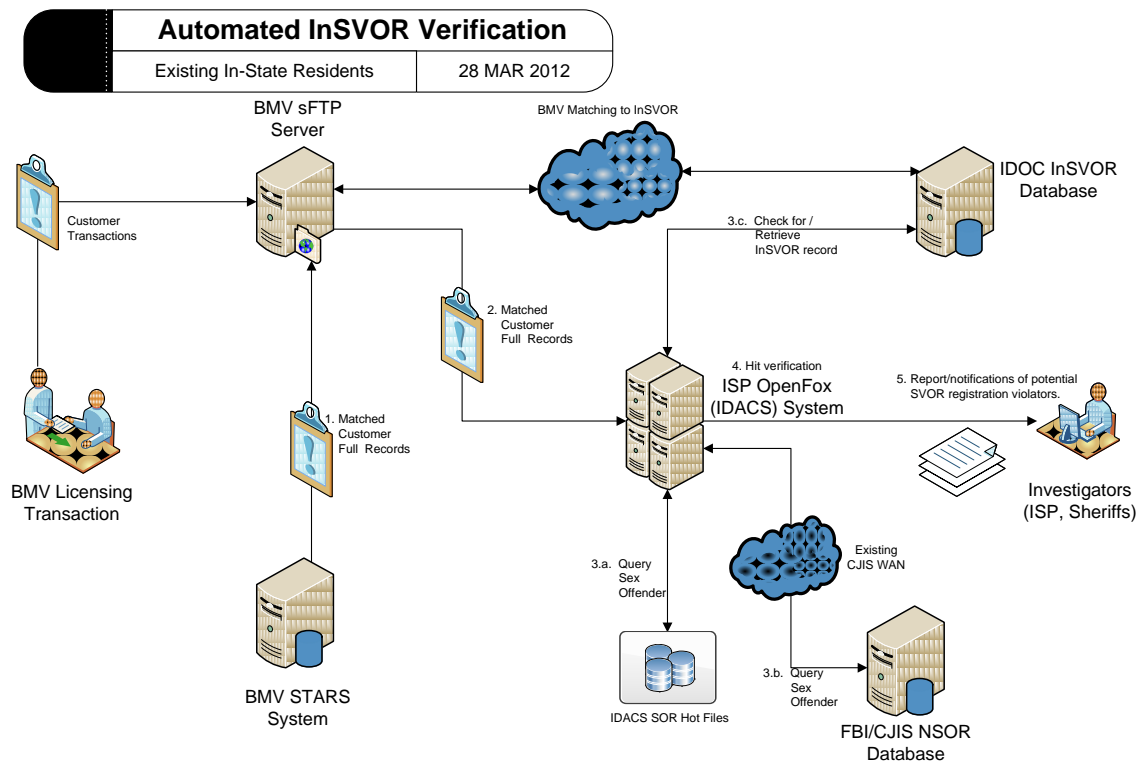
Figure 1 – Conceptual Information Flow – Existing Residents

Automated InSVOR Verification

New Residents from Out-of-State	23 APR 2012

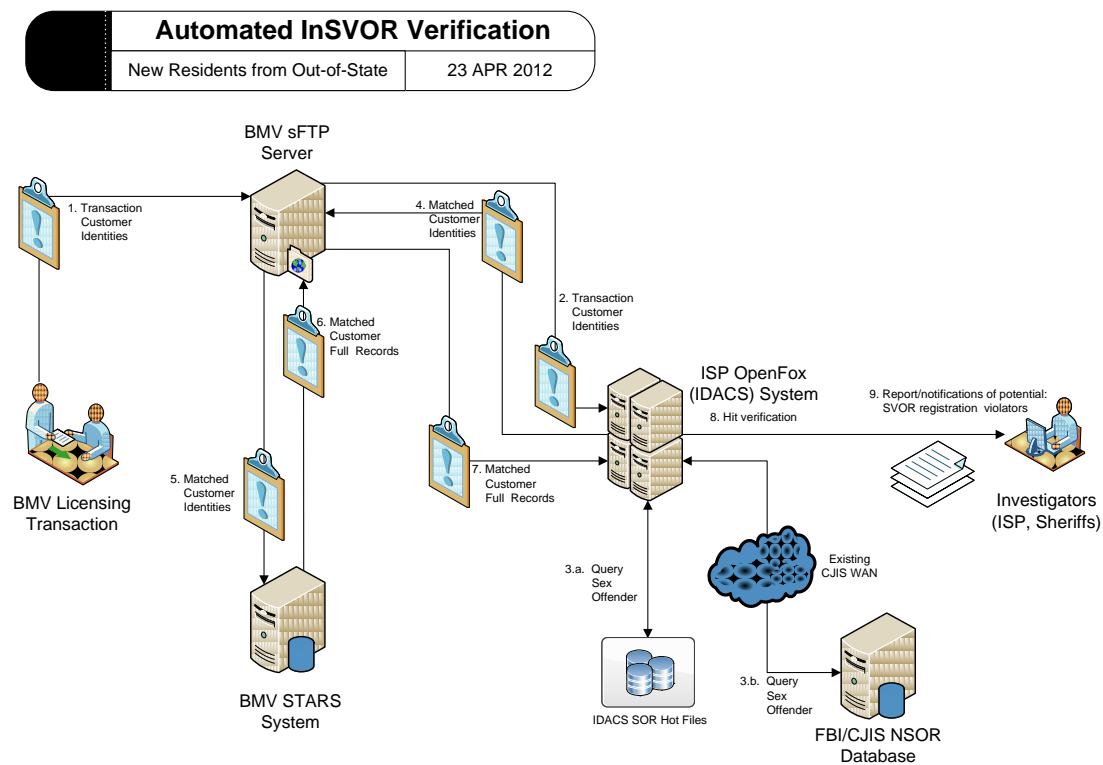**Figure 2 – Conceptual Information Flow – New Residents**

4 DESIGN

4.1 Infrastructure

Where appropriate, the design of these interfaces will be based upon web services passing National Information Exchange Model (NIEM) compliant XML for both requests and responses. Web services are an industry-standard method of exchange between heterogeneous information systems. The use of NIEM facilitates sharing and reuse of common models for various information exchanges across the full spectrum of government information partners.

Where web services are inappropriate for the task, other secure means of communications will be employed, such as secure File Transport Protocol (sFTP).

4.1.1 Connections

4.1.1.1 Connections Between IDACS and InSVOR

Communications between IDACS and InSVOR will be via "Web services" interfaces. The term Web services describes a standardized way of integrating Web-based applications using the XML, SOAP, WSDL and UDDI open standards over an Internet protocol backbone. XML is used to tag the data, SOAP is used to transfer the data, WSDL is used for describing the services available and UDDI is used for listing what services are available.

The InSVOR system will publish a service to the network, using a new WSDL file, to allow IDACS to send identifying information from STARS transactions to InSVOR to check against its database. The IDACS system will also publish a Web service to the network, using a similar (and corresponding) WSDL file, enabling InSVOR to send responses back to the IDACS system to update the IDACS Sex Offender File and NSOR. (This is described more fully in a separate project document.

Both the IDACS and the InSVOR systems will be able to initiate a transaction to be sent to the other system. When originating a message, the originating system will hold the session pending receipt of an immediately reply from the target system. This will serve as an application to application acknowledgement to ensure delivery of information.

The data will be exchanged between the systems via the State network using TCP/IP and through the integration of an industry standard web services technology using SOAP. The data will be encrypted during production operation using standard Secure Socket Layer (SSL) encryption technology incorporating 128-bit encryption algorithms. (NOTE: During testing, the SSL will not be utilized to more easily debug data format issues.)

4.1.1.2 Connections Between IDACS and STARS

For communications with STARS for the transfer of Customer information, the IDACS system will use sFTP between the IDACS server and a designated BMV sFTP server. This project will not make use of and does not anticipate any changes to the IDACS-STARS interface.

4.1.1.3 Connections Between IDACS and NCIC

For communications with NCIC for NSOR queries, the IDACS system will continue to use existing protocols and facilities. This project does not anticipate any changes on the IDACS-NCIC interface.

4.1.2 National Information Exchange Model (NIEM) XML Based

To support government-wide information sharing, all recipients of Federal grants for projects implementing information exchange capabilities using XML technology are required to use the National Information Exchange Model (NIEM) in accordance with the published NIEM Implementation Guidelines. Grantees are further required to assemble, register and make available without restriction all IEPDs and related artifacts generated as a result of the grant to the component registry. Assembly of NIEM IEPDs within the NIEM IEPD Tool is optional. However, NIEM IEPDs must be assembled in accordance with IEPD Requirements as specified by the NIEM Program Management Office, and must be registered in the Information Exchange Package Documentation (IEPD) Clearinghouse.

Because this project is being funded through multiple Federal grants, the use of NIEM in the data exchanges is mandatory where new exchanges are being developed. Though it is unlikely specific Information Exchange Package Definitions (IEPDs) exist at the national level for the data content envisioned, any local IEPDs developed must conform to NIEM schemas. A list of links regarding NIEM and the related GJXDM is included in the *References* Section below. The links provided include publicly available tools to assist in developing conforming NIEM schemas.

An IEPD should be created for each major new exchange, as outlined in the following sections.

4.2 Transactions

Three primary transactions may be expected from STARS: Credentials, Registrations and Titles.

4.2.1 Credentials

Credential Transactions include Driver Licenses and State Identification Cards. Depending on the residence and other identification proofs provided, the credential can be issued as either a SecureID credential or a non-secure credential. Nonetheless, all credential transactions should be passed to IDACS for InSVOR/NSOR verification.

4.2.2 Vehicle Registrations

Vehicle registrations include new vehicle registrations, transferred registrations, and renewals, regardless of where or how executed.

4.2.3 Vehicle Titling

Vehicle title transactions include both instate transfers of title and new or transferred titles from out-of-state jurisdictions.

4.3 Process

The process will proceed daily through several steps designed to ensure that IDACS only handle the minimum quantum of BMV data necessary to accomplish the objectives of the project.

4.3.1 Preliminary Matching – Existing In-State Customers

The BMV will perform the initial matching against InSVOR in processes described and designed separately from this document.

4.3.2 Preliminary Matching – New Customers from Out-of-State

The first part of the process will be a preliminary match based upon the most common data available for registered Sex Offenders and felony warrants: Name, date of birth, and gender.

At the close of each business day STARS will transmit by secure FTP (sFTP) to IDACS a comma-delimited (.CSV) file (the "Daily Customers" file) containing the following information for each transaction processed in the preceding business day:

- Name (last, first, and middle names as separate fields)
- Date Of Birth
- Sex
- Customer ID number

In the event that the transaction involves a vehicle with multiple registered owners, STARS will include a separate customer record for each registered owner, regardless of whether they appeared at the branch or personally participated in the transaction.

Upon receipt of the Daily Customers File, IDACS will submit queries to NCIC's NSOR and to the IDACS Sex Offender File (as standard "QXS – Query Sex Offender" transactions), ignoring any record representing a customer under 16 years of age. All query responses will return to IDACS for an initial determination of possible "hits".

4.3.3 Detailed Matching – All Customers

For new customers from out-of-state, IDACS will compile a .CSV file of transaction Customer ID numbers that appear to match response records (the "Matched Hits" file), and return that file to STARS via sFTP. STARS will use the Customer ID Numbers returned in the Matched Hits File to look up the full customer records and, *along with existing in-state customers that BMV separately determine to be potential "matches"*, prepare a second .CSV file for IDACS (the "Full Records" file) for **all** customers, consisting of the following information:

➢ Customer personally identifying information

- Customer ID Number
- Record type ("00" for "Base Customer")
- Name (last, first, middle)
- DOB
- Sex
- Race
- Height
- Weight
- Hair color
- Eye color
- SSN
- Legal address and mailing address with county name and number
- OLN or state issued ID number
- The address presented in the transaction, or the Customer's most current legal address

➢ All Customer vehicles and associated addresses

- Customer ID Number
- Record type ("01" – "99", incremented by +1for each vehicle)
- Vehicle make
- Vehicle model
- Vehicle year
- Vehicle color
- Vehicle VIN
- Vehicle plate number
- Registered owner's address with county name and number

Upon receipt of the Full Records File, IDACS will compare the additional personal identifiers and vehicle information with the like information returned in the preliminary responses from NCIC, IDACS, and InSVOR. If no additional fields match between the Full Record and the responses, IDACS will discard the responses and do nothing more with the transaction.

4.3.4 Investigator Verification

If a match is found between information in a Customer's full record (including vehicle information), and one or more of the responses received from NCIC, IDACS, or InSVOR, IDACS then will compare the address information from the various Registries with the BMV Customer address information. If the addresses match, no further action will be taken.

If the addresses do not match between a Registry response and the BMV Customer information, one or more law enforcement agencies will be notified and provided the information for further investigation and verification, as detailed below.

Identified registered offenders with out-of-state addresses on NSOR will be referred to ISP Criminal Investigations for follow up.

Identified registered offenders with in-state addresses that do not match the information provided by BMV will be referred to the local agency with jurisdiction over the registered offender at his (or her) new address.

Notifications from IDACS to interested agencies, including to ISP Criminal Investigations, will be by the standard secure Administrative Message (known as an "AM" message) within IDACS directly to the agency's Originating Agency Identifier (ORI). The InSVOR system will also provide notification directly to the agency of jurisdiction for matches on its Known Registry Violators file.

Additionally, each night IDACS will produce a batch report of "hits", destined for ISP Criminal Investigations Division, which will contain a summary of all transactions that potentially match registered offenders and present an address mismatch, regardless of what entity was notified. The final document format and method for delivering this report securely will be determined during detailed design.

As part of the standard IDACS training curriculum, IDACS operators at all agencies will be instructed on the proper use and handling of the information they receive as a response to this program. This includes limitations on and documenting of all secondary dissemination.

REFERENCE AND LINKS

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